

Work Order ID 115172

Monday, March 17, 2014 2:49:37 PM

115172

Page 1

Item ID: D3537-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Wearpad

Stop

NS2

Start Date: 4/04/14 Start Qty: 50.00

50

Cust Item ID:

Required Date: 4/04/14 Req'd Qty: 50.00

50

Customer:

Reference:

Approvals:

Process Plan: ✓

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3537	Rev C								

100

100

Waterjet

FLOW CNC Waterjet

304.063"

FLOW WATER JET

Memo

0.00

0.00

58

0

Jm14-03-23

110

110

QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

0.00

Memo

0.00

58

0

Jm14-03-23

120

120

QC

Quality Control

QC8- Inspect parts - second check

0.00

DAS

27

9:59

14/3/24

58

00

DQA: _____

Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

Work Order update only

Work Order: _____	DISPOSITION			AGAINST DEPARTMENT/PROCESS																							
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>																						
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>																						
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>																						
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																							
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector																		
Design																											
Doc/Data																											
Equip/Tooling																											
Handling/Pre																											
Material																											
Operator																											
Offset/Setup																											
Process																											
Supplier																											
Training																											
Transport																											
Unapproved																											
FAULT CATEGORY																											
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function						<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence						<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <hr/> <hr/> <hr/>						<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <hr/> <hr/> <hr/>					

Work Order ID 115172

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115172

Page 2

Item ID: D3537-1

Revision ID:

Item Name: Wearpad

Start Date: 4/04/14

Start Qty: 50.00 ***50***

Required Date: 4/04/14

Req'd Qty: 50.00 ***50***

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run

Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

130

Brake NC

NC BRAKE

0.00

DAS
30
9-89

140324

Brake NC

Memo

0.00

1-Form as per Dwg D3537 on CNC brake using Jigs DT 8261 and DT 8326.2
Identify as D3537-1

140

140

Large Fab

Large Fab

0.00

58

140325

Large Fab

Memo

0.00

M12603 Oty. Description Batch A/R 2059B Hardcoat
1-Weld as per Dwg D3537 using Jig DT 82102-Remove any
weld that penetrated through Wearpadif necessary

150

150

QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

Memo

0.00

(56)

14.03.24

DAS
9
9-89

DQA: _____ Date: _____

Date:



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ **Date:** _____

Date:

Work Order update only

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework Scrap Use-as-is Suspected Unapproved	Skid-tube Machining Thermoforming Large Fab	Crosstube Small Fab Finishing Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier	Engineering Quality Other				
Part No. _____											
NCR No. _____											
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Design											
Doc/Data											
Equip/Tooling											
Handling/Pre											
Material											
Operator											
Offset/Setup											
Process											
Supplier											
Training											
Transport											
Unapproved											
FAULT CATEGORY											
Landing Gear			General								
Bending	Bend	Folio/Program	Outside Dimensions	Pressure/Forced							
Centre Not Concentric	BOM/Route	Grain	Over/Under tolerance	Set-up							
Cracks	Broken/Damage/Defect	Hardware	Part Incorrect	Temperature/Cure							
Crimp/Kink/Ripple/Wave	Burrs	Inspection Incomplete/Unqualified	Part Lost/Missing	Weld							
Cuffs	Contamination	Instructions Incomplete/Unclear	Part Moved	Wrong Stock Pulled							
Crushing	Countersink	Misaligned/off center	Positioned Wrong								
Heat Treat	Cut Too Short	Mislabeled	Power Loss/Surge								
Inspection Strip in Tube	Drawing	Misread									
Marks/Chatter	Drill Holes	Off-set									
Turning Sequence	Finish	Out of Calibration									
Wave/Twist in Tube	Fit/Function	Out of Sequence									

Work Order ID 115172

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115172

Item ID: D3537-1

Accept

N900040100

Setup Start

Revision ID:

Stop

Item Name: Wearpad

Start Date: 4/04/14 Start Qty: 50.00 ***50***

Cust Item ID:

Required Date: 4/04/14 Req'd Qty: 50.00 ***50***

Customer:

Reference:

Run Start

Approvals: Process Plan: _____ Date: _____

Tooling: _____ Date: _____

Stop

QC: _____ Date: _____

SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
Description

160

QC5- Inspect part completeness to step on W/O

160

QC

Quality Control

Memo

Set Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyR
N

0.00

DAS

(56)

14-03-28

9
9-89

170

Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3

170

Powdercoat

Powder Coating

11/25/2014

Memo

START TIME:

FINISH TIME:

0.00

DAS

56 14-3-28 9-89

0.00

9
9-89

OVEN TEMPERATURE:

945

180

QC3- Inspect Part Finish

180

QC

Quality Control

Memo

0.00

DAS

0.00

9
9-8956
14-3-28

DQA: _____ Date: _____

Date:



WORK ORDER NON-COMPLIANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order ID 115172

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115172

Page 4

Item ID: D3537-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Wearpad

Start Date: 4/04/14 Start Qty: 50.00

50

Cust Item ID:

Required Date: 4/04/14 Req'd Qty: 50.00

50

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

190

Identify as per dwg & Stock Location: FP-001

0.00

X56 4 46 1403 31

190

Packaging

Packaging

200

QC21- Final Inspection - Work Order Release

0.00

M2 1403-31

200

QC

Quality Control

1403-31

DQA: _____ Date: _____

Date:



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Date:

Work Order update only

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework Scrap Use-as-is Suspected Unapproved	Skid-tube Machining Thermoforming Large Fab	Crosstube Small Fab Finishing Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier	Engineering Quality Other				
Part No. _____											
NCR No. _____											
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Design											
Doc/Data											
Equip/Tooling											
Handling/Pre											
Material											
Operator											
Offset/Setup											
Process											
Supplier											
Training											
Transport											
Unapproved											
FAULT CATEGORY											
Landing Gear			General								
Bending	Bend	Folio/Program	Outside Dimensions	Pressure/Forced							
Centre Not Concentric	BOM/Route	Grain	Over/Under tolerance	Set-up							
Cracks	Broken/Damage/Defect	Hardware	Part Incorrect	Temperature/Cure							
Crimp/Kink/Ripple/Wave	Burrs	Inspection Incomplete/Unqualified	Part Lost/Missing	Weld							
Cuffs	Contamination	Instructions Incomplete/Unclear	Part Moved	Wrong Stock Pulled							
Crushing	Countersink	Misaligned/off center	Positioned Wrong								
Heat Treat	Cut Too Short	Mislabeled	Power Loss/Surge								
Inspection Strip in Tube	Drawing	Misread									
Marks/Chatter	Drill Holes	Off-set									
Turning Sequence	Finish	Out of Calibration									
Wave/Twist in Tube	Fit/Function	Out of Sequence									

Picklist Print

Monday, March 17, 2014 2:49:37 PM

Page 1

Work Order ID: 115172

115172
D3537-1

Parent Item: D3537-1

Parent Item Name: Wearpad

Start Date: 4/04/14

Required Date: 4/04/14

Start Qty: 50.00

Required Qty: 50.00

Comments: IPP Rev:A New Issue 07-02-14 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S16GA		Purchased	No			100	sf	274.8270	0.106	6.5	**		JM14-U3-23

M304S16GA

304/316 Sheet .063

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
MAT020	274.827	
M126915	1.487	
M127821	126.13	
M128054	34.04	
M128423	113.17	128473

DQA: _____

Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

Work Order update only

Work Order: _____	DISPOSITION	AGAINST DEPARTMENT/PROCESS							
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General									
	Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>					
	Centre Not Concentric <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Set-up <input type="checkbox"/>					
	Cracks <input type="checkbox"/>	Broken/Damage/Defect <input type="checkbox"/>	Hardware <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>					
	Crimp/Kink/Ripple/Wave <input type="checkbox"/>	Burrs <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Weld <input type="checkbox"/>					
	Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Moved <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>					
	Crushing <input type="checkbox"/>	Countersink <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>						
	Heat Treat <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	Other <input type="checkbox"/>					
	Inspection Strip in Tube <input type="checkbox"/>	Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>							
	Marks/Chatter <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Off-set <input type="checkbox"/>							
	Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>							
	Wave/Twist in Tube <input type="checkbox"/>	Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>							

DART AEROSPACE LTD	Work Order:	115172
Description: Wearpad	Part Number:	D3537-1
Inspection Dwg: D3537	Rev: C	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

DAS
27

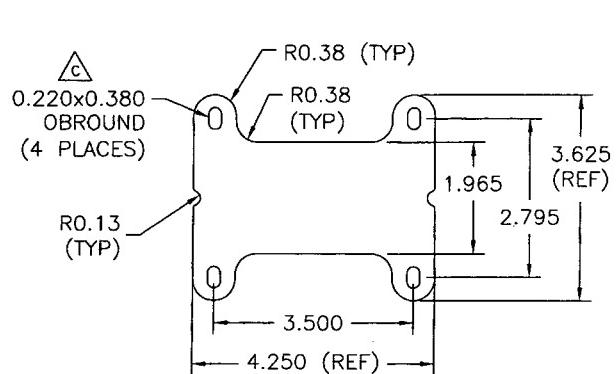
61

3-35

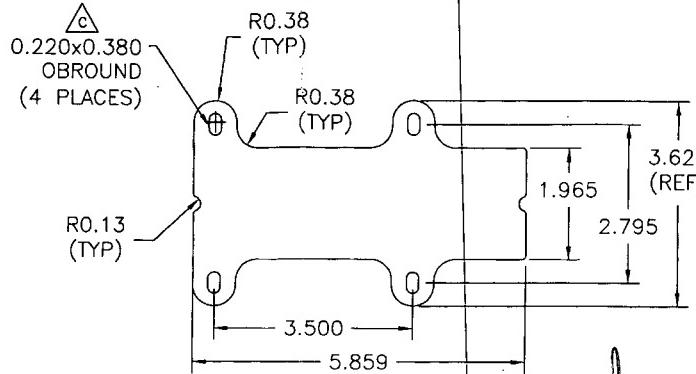
Measured by:	JM	Audited by:	9-68	Prototype Approval:	N/A
Date:	14-03-23	Date:	14/3/23	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	07.03.21	New Issue	KJ/JLM	
B	07.04.27	Dimensions revised per Dwg Rev. B	KJ/JLM	
C	07.05.28	Dimensions revised per Dwg Rev. C	KJ/JLM	<i>[Signature]</i>

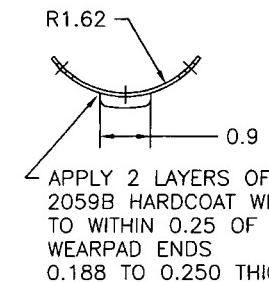
D3537-1F FLAT PATTERN



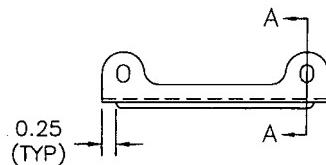
D3537-3F FLAT PATTERN



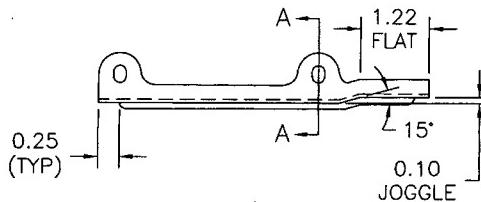
SECTION A-A



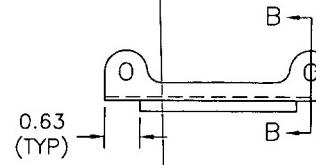
D3537-1 LONGITUDINAL BEND (MADE FROM D3537-1F)



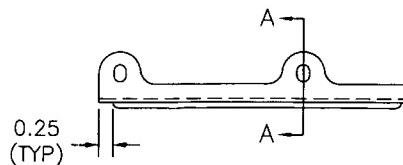
D3537-3 LONGITUDINAL BEND (MADE FROM D3537-3F)



D3537-5 LONGITUDINAL BEND (MADE FROM D3537-1F)



D3537-7 LONGITUDINAL BEND (MADE FROM D3537-3F)



D3537-1/-3/-5/-7 WEARPAD NOTES

- 1) MATERIAL: AISI 304/316 SS SHEET PER AMS 5513 OR AMS 5524, 16 GAUGE (0.063 THICK)
(REF DART SPEC. M304S16GA)
- 2) BREAK ALL SHARP CORNERS 0.063 MAX
- 3) WELD PER QSI 004
- 4) FINISH: POWDER COAT GREY SANTEX (4.3.5.6) PER QSI 005 4.3
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

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DART AEROSPACE USA, INC.

DESIGN	07.04.13	WIDEN TAB TO 0.380, WELD PATTERN
B	07.03.20	ADD AMS 5513 AND AMS 5524
A	06.11.06	NEW ISSUE
DRAWN BY	PJ	DART DART AEROSPACE USA, INC. PORT HADLOCK, WA
CHECKED	4	APPROVED 4 DRAWING NO. D3537 REV. C
DATE	07.04.13	TITLE WEARPAD SHEET 1 OF 1
SCALE	1:2	